

SECTION IV.—RIVERS AND FLOODS.

RIVERS AND FLOODS, DECEMBER, 1914.

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Texas.—Heavy local rains in the watersheds of the Guadalupe, middle Colorado, lower Brazos, and lower Trinity on the 1st caused the Trinity at Dallas to overflow its banks on the 3d, the Guadalupe to reach the flood stage at Victoria on the 4th, and the Colorado to attain a bank-full stage on the 2d. These freshets subsided quickly.

The rains continued intermittently until the morning of the 3d, but they were light as a rule.

Carolinas, Georgia, and Tennessee.—The same storm caused quite general rains in the Carolinas, Georgia, and Tennessee on the 4th and 5th, ceasing on the last-named date. These rains caused the rapidly flowing streams of the foothills country in the Carolinas to reach and pass slightly above flood stages. A second short period of general rains occurred over Tennessee and the Carolinas on the 25th, and finally, on the 29th, another period of general, but not especially heavy, rains occurred. The rivers of South Carolina were in flood on the 26th and 27th and those of North Carolina about a day later, the details being shown in the table below. A portion of the Tennessee River in the Chattanooga district barely reached the flood stage on the 28th. There was no financial loss.

TABLE 1.—Flood crest stages in Carolina rivers during December, 1914.

River.	Station.	Flood stage.	Crest stage.	Date.
<i>North Carolina.</i>				
		<i>Feet.</i>	<i>Feet.</i>	
Roanoke.....	Weldon.....	30.0	33.0	Dec. 8
Neuse.....	Smithfield.....	13.0	17.8	Dec. 28
Cape Fear.....	Fayetteville.....	35.0	41.0	Dec. 27
Tar.....	Greenville.....	13.0	13.5	Jan. 1
<i>South Carolina.</i>				
Saluda.....	Pelzer.....	7.0	8.6	Dec. 5
Do.....	do.....	7.0	7.6	Dec. 26
Do.....	Chappels.....	14.0	14.0	Dec. 7
Do.....	do.....	14.0	14.0	Dec. 28
Broad.....	Blairs.....	14.0	15.9	Dec. 14
Do.....	do.....	14.0	16.9	Dec. 27
Congaree.....	Columbia.....	14.0	15.5	Dec. 3
Do.....	do.....	14.0	16.1	Dec. 27
Catawba.....	Catawba.....	11.0	17.0	Dec. 6
Do.....	do.....	11.0	16.2	Dec. 27
Wateree.....	Camden.....	24.0	29.5	Dec. 4
Do.....	do.....	24.0	30.5	Dec. 27
Great Pee Dee.....	Cheraw.....	27.0	29.4	Dec. 7
Do.....	do.....	27.0	33.2	Dec. 27

TABLE 2.—Money loss due to floods in the Carolinas, December, 1914.

Items.	North Carolina.	South Carolina.
Bridges, highways, etc.....		\$2,650.00
Crops.....		600.00
Live stock.....		1,790.00
Suspension of business.....	\$5,000.00	555.00
Total money loss.....	5,000.00	5,595.00
Total lives lost.....		4
Estimated saving by warnings.....	10,000.00	35,400.00

Arizona.—A 3-days rainfall over southern Arizona on the 22d to 24th filled all streams and dry channels of that region to overflowing. The resulting damage, after making allowance for the usual exaggeration of newspaper reports, was undoubtedly heavy. The greatest destruction appears to have been done in the Santa Cruz River Valley, south of Tucson. That river, which terminates in the desert near Tucson, is said to have attained a width of more than a mile and a half in places south of Tucson. The mountainous nature of the basin of the upper Santa Cruz and the San Pedro Rivers added greatly to the suddenness of the flood both in rising and decaying. The flood in the Gila at Florence, the only gaging station on the river, continued over several days. The report from that station for the several dates during the continuation of the flood follows. The flood stage is 3 feet.

Date.	Hour.	Stage.	Above flood stage.	Remarks.
		<i>Feet.</i>	<i>Feet.</i>	
Dec. 18.....		4.0	1	
19.....	9:30 a. m.	4.0	1	
19.....	8:00 p. m.	6.0	3	
20.....	8:45 a. m.	8.0	5	
20.....	4:00 p. m.	10.0	7	
23.....	5:00 p. m.	9.6	6.3	
24.....	8:00 a. m.			Approach to bridge washed away. No reading.
25.....	9:00 a. m.	7.6	4.6	

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

SNOWFALL AT HIGH ALTITUDES, DECEMBER, 1914.

Arizona.—While the greater part of the precipitation for December occurred in the form of rain throughout the mountain districts of the southern half of the State, except in the most elevated regions, more than the average amount of snowfall was reported from most sections, owing to the unusually stormy conditions. Notwithstanding the rains and considerable melting, an average depth or more of snow with a high water content was generally reported from the mountain districts at the close of the month.

In the Salt River Watershed, reports from the White Mountain districts, the northern slopes of the Blue Range, and from the northern divide were more promising than usual, so early in the season, for an adequate spring run-off to the Roosevelt Reservoir. At the end of the month there were from 8 to 12 inches of snow at the higher elevations on the northerly slopes, with the snow line extending approximately to the 6,000-foot level.

In the southeastern counties the snowfall was heavy in the mountains, but there was much melting, leaving but an average amount in the Huachuca and the Chiri-